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BEFORE THE ARIZONA CORPORATION COMMISSION

Arizona Corporation Commission
DOCKETED

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COMMISSIONERS

JEFF HATCH-MILLER, Chairman
WILLIAM A. MUNDELL
MARC SPITZER
MIKE GLEASON
KRISTIN K. MAYES

IN THE MATTER OF THE APPLICATION OF NAVOPACHE ELECTRIC COOPERATIVE, INC. AN ARIZONA NON-PROFIT CORPORATION, FOE APPROVAL OF A RUS GUARANTEED FFB LOAN IN THE AMOUNT OF $33,231,000 TO FUND CONSTUCTION OF FACILITIES	DOCKET NO. E-01787A-05-0719
	COMPLIANCE

In compliance with Decision No. 68691 (May 5, 2006), Navopache Electric Cooperative, Inc. hereby files a capital plan to achieve and maintain equity at no less than 30 percent of total capital and a plan to increase its TIER and DSC ratios to a minimum of 1.25.

RESPECTFULLY SUBMITTED this 21st day of July 2006.

By _____

John Wallace
Grand Canyon State Electric Cooperative Association
120 North 44th Street, Suite 100
Phoenix, AZ 85034

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Original and thirteen (13) copies of
Navopache Electric Cooperative, Inc.'s Equity Plan and TIER AND DSC Plan
filed this 21st day of July, 2006 with:

DOCKET CONTROL
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

By _____

Management Review Panel

The ACC should create a UCPP Management Review Panel (review panel) for ongoing review and modification of the UCPP. The working group and subgroups unanimously believe that a review panel with authority to expeditiously modify the program is critical to its ultimate success. Program elements may need to be adjusted to reflect new information, changing market conditions, incorrect initial assumptions, or technological innovations. *This recommendation is the single most important recommendation in this report.*

The recommendations of the working group with respect to the review panel are presented below. The discussion below is not intended to describe in detail the full functional implementation of the panel, but rather the working group's recommendations for conceptual structure and intent.

Panel Structure and Function

The UCPP Management Review Panel should be a seven member panel created and maintained to provide on-going review of UCPP program modifications and to efficiently facilitate incorporation of features that increase efficacy as more information is gained by program implementation. The panel will make recommendations to the ACC Utilities Director for review and potential program incorporation. The Utilities Director should have discretion to implement recommendations of the review panel without presentation to or approval by the Commission.

The panel make-up should include one representative from the ACC staff, three representatives from the distributed generation industry, one representative each from Arizona Public Service (APS) and Tucson Electric Power (TEP), and one representative for the Arizona cooperative utilities. The industry representatives should not exceed one each from a technology type and should reflect the diversity of technologies and consumer types.

The industry and ACC staff representatives should be appointed by the ACC Utilities Director and the utilities should each nominate a representative to serve on the panel. Selected representatives should serve two year terms.

The review panel shall make recommendations to the ACC Utilities Director for consideration on the following subjects:

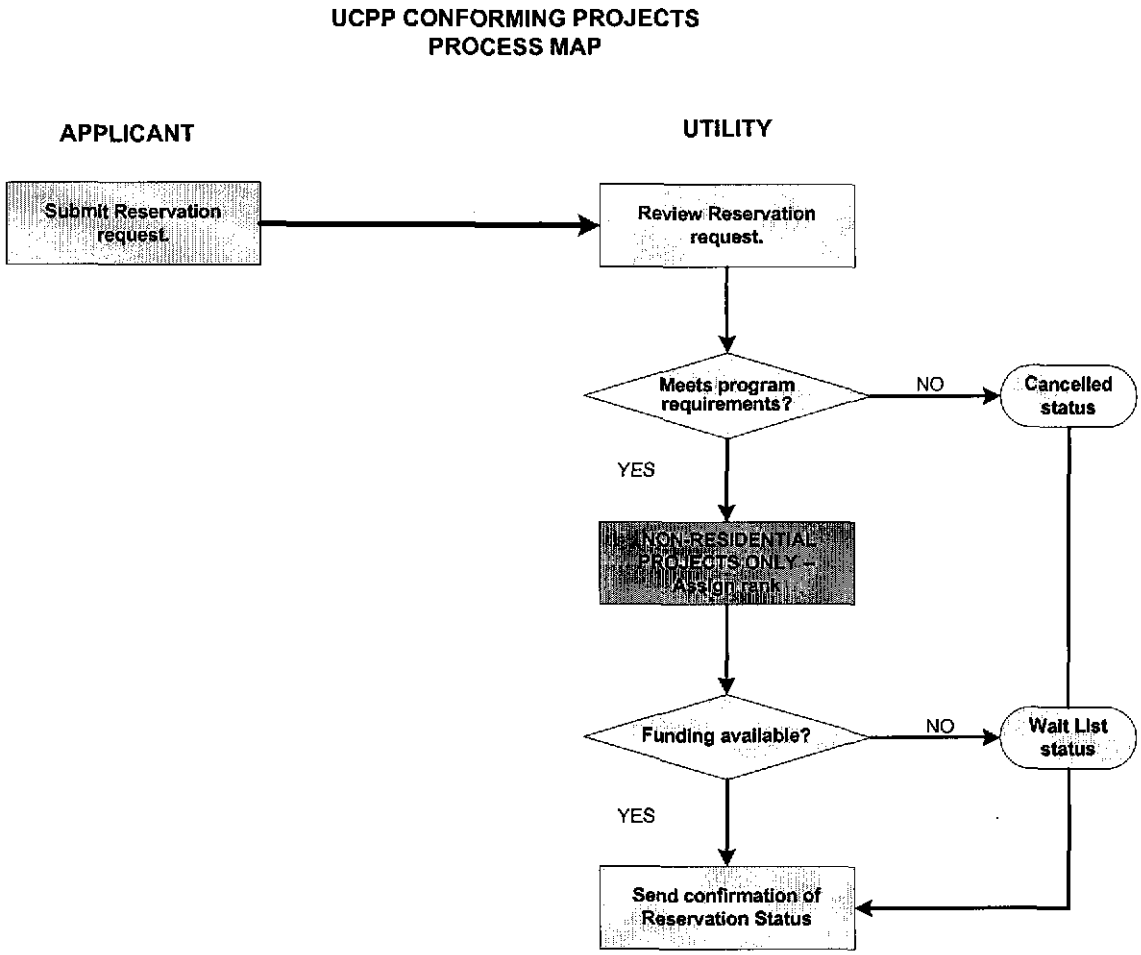
- Adjustment of incentive structures to reflect market response
- Process related issues that effect market function
- Development of new conforming incentives , as necessary
- Arbitration of incentive or program borne conflict

The review panel should meet once per quarter (or as necessary) to assess the items related to the above described purpose. The review panel will review input from stakeholders on items before it for consideration, and it is anticipated that on occasion stakeholders may be consulted by the review panel to provide additional input. Upon full consideration of an item, the review panel will vote on adoption of the specified recommendation. A majority vote on a subject would result in a recommendation to the Utility Director for consideration and potential incorporation into the UCPP.

Process Map – Conforming Projects

The working group mapped the UCPP process for conforming projects to illustrate the flow of information between the applicant and the utility. The following sections reflect the recommended process flow.

Step 1 – Reservation request and Assignment of Reservation Status



Process Map Description – Step 1

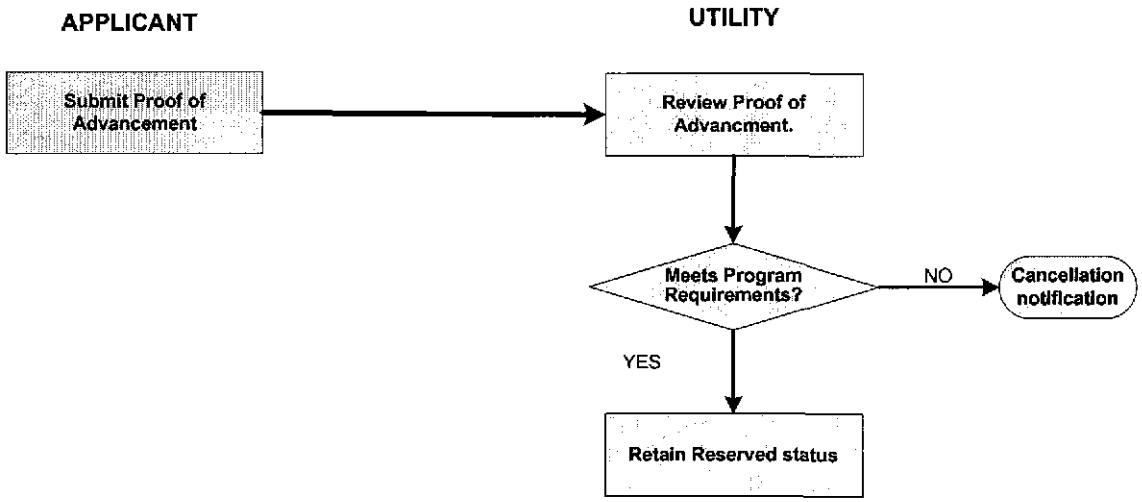
The first input the utility receives from the customer is the reservation request. The utility will review the reservation request to ensure the application conforms to program requirements. Residential reservation requests are processed on a first-come, first-reserved basis. Non-residential reservation requests are assigned a rank based on the project ranking calculator and the submittal date of the reservation request. Additional detail on non-residential reservations is provided in the incentives section of this report.

After reviewing the reservation request, the utility will assign a reservation status. If the reservation request is approved, the utility will send a confirmation to the applicant. If

the reservation request is denied because the request is not in compliance with program requirements, the request will be cancelled and the utility will send notification to the applicant. Similarly, if the reservation request is denied because funding is not available, the request will be placed on a waiting list and the utility will send a notification to the applicant.

Residential reservation requests will be reviewed within 30 days of the utility's receipt of the request. Non-residential reservation requests will be reviewed within 30 days following the closing of the reservation period.

Step 2 – Proof of Advancement Process Map



Process Map Description – Step 2

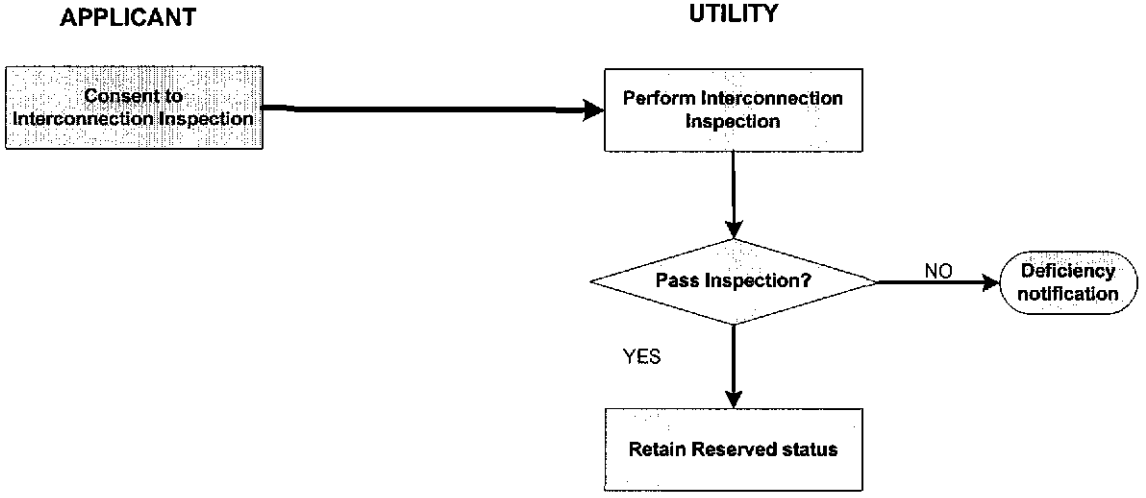
The applicant must submit proof of advancement to the utility to retain their reservation. At a minimum, the proof of advancement documentation will include a project agreement, executed installation agreement, building and/or construction permits, and, if applicable, an executed interconnection agreement.

The timeline for proof of project advancement is based on the date of reservation confirmation and must be provided by the customer in accordance with the following schedule:

Residential	**Non-Residential ≤$75,000 Total Incentive**	**Non-Residential > $75,000 Total Incentive**
60 Days	60 Days	120 Days

If proof of advancement is not received within the specified timeframe, the reservation is cancelled. The applicant has the option to reapply for funding after the reservation has been cancelled, but the request will be processed in the same manner as a new project reservation and will be contingent upon availability of funding.

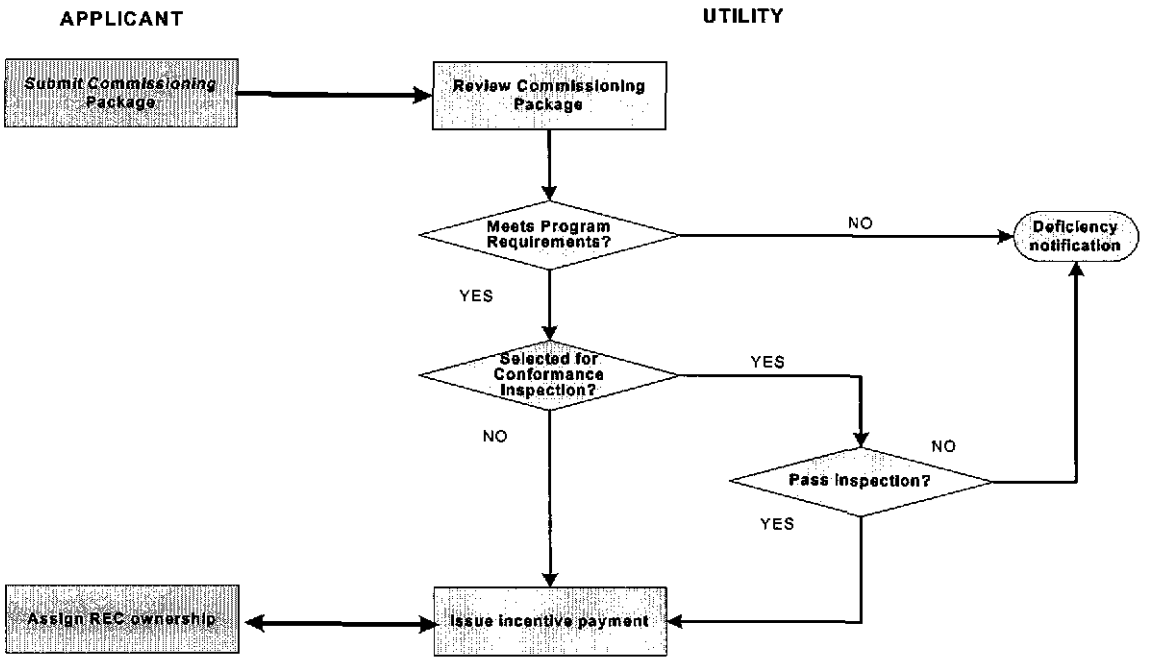
Step 3 – Interconnection Inspection (for Grid-Tied Qualifying Systems)



Process Map Description – Step 3

Grid-tied qualifying systems must submit to and pass an interconnection inspection before the system can be commissioned. The utility conducts the interconnection inspection and will notify the applicant of the results of the inspection. If the system passes the inspection, the application retains the reservation. The applicant can keep the reservation even if the system fails the initial inspection as long as the deficiency is remedied within the defined reservation timeframe.

Step 4 – System Commissioning and Credit Purchase

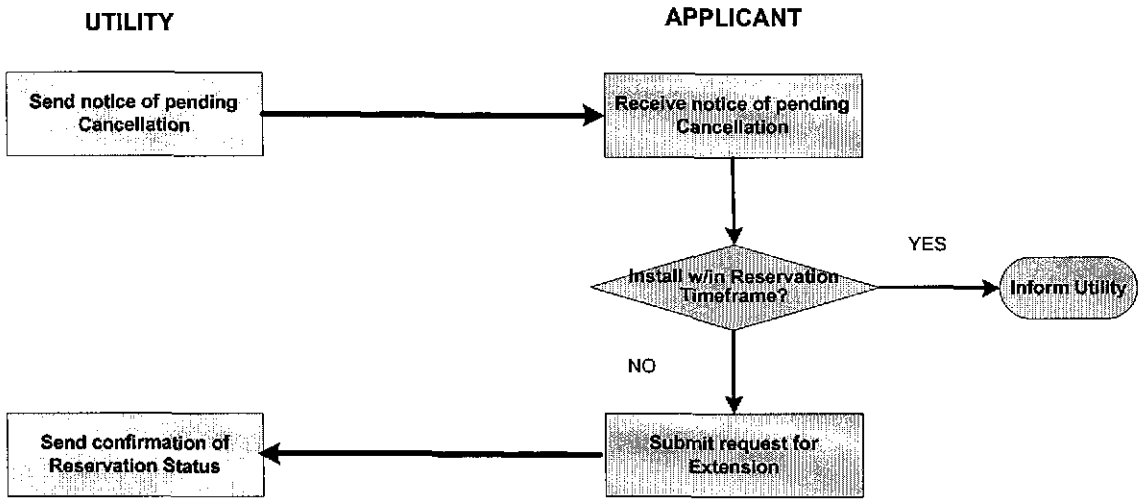


Process Map Description – Step 4

After the system has been commissioned, the applicant must submit a commissioning package to the utility. The utility will review the commissioning package and confirm that all program requirements have been met, including passing the interconnection inspection. The utility may at its discretion perform a conformance inspection of the system. The utility will notify the applicant of the scheduled conformance inspection and the applicant must make the system available for inspection. In some cases, an incentive payment may not be issued until after a qualifying system has passed the conformance inspection.

Within thirty days of receiving the commissioning package and interconnection inspection approval, the utility will issue an incentive payment to the applicant if all program requirements have been met. After the utility issues the UFI payment to the applicant, the utility is assigned exclusive rights to all the RECs associated with the generation produced from the qualifying system. Systems receiving PBI will report production, receive payment, and release all RECs in conformance with the detail described in this report under the sections titled Procedures for Production Based Incentives and Distributed Generation Incentives.

Conditionally Required Step - Cancellations



Process Map Description – Cancellations

Unless an extension is granted, a reservation request will be cancelled if all program requirements have not been met with the reservation timeframe.

The reservation timeframe is determined in accordance with the following schedule:

Residential	**Non-Residential ≤$75,000 Total Incentive**	**Non-Residential > $75,000 Total Incentive**
180 Days from Reservation Confirmation Date	180 Days from Reservation Confirmation Date	365 Days from Reservation Confirmation Date

The utility will notify the applicant of the pending cancellation in accordance with the following schedule:

Residential	**Non-Residential ≤$75,000 Total Incentive**	**Non-Residential > $75,000 Total Incentive**
30 Days Prior to Cancellation	30 Days Prior to Cancellation	60 Days Prior to Cancellation

Extensions

The utility will grant an extension for up to 90 days following timely receipt of a customer's request for extension. Utility may approve written extension requests detailing the conditions for delay for periods beyond 90 days under extenuating circumstances.

Operations Monitoring

The customer is obligated to report system production to the utility in accordance with the reporting schedule established in the program agreement between the utility and the customer.

Procedures for Production Based Incentives

Each project eligible for a PBI requires a project agreement between the applicant(s) and the utility that will detail the assignment of energy and RECs and the assignment of payment. All PBI Project Agreements will include the following requirements:

1. Meters certified according to industry standards and providing readings which can readily be converted to kWh using standard engineering conversions provided as part of the system commissioning package.
2. Monthly meter readings recorded by the owner/operator. Provisions for the utility to read the meter no less frequently than annually.
3. Quarterly meter reading summaries submitted to the utility accompanying payment requests.
4. A production and payment schedule for the following periods (Jan 1 to Mar 31; Apr 1 to Jun 31; Jul 1 to Sep 31; Oct 1 to Dec 31). Each quarterly report must be received by the utility within 14 days of the period end date. Late reports may not be paid until the following reporting quarter.

5. Utilities will provide payment to the assigned payee within 30 days of receiving a timely quarterly report.
6. PBI payments will begin with the first quarterly report following receipt of the completed system commissioning package and continue for the life of the agreement term. As part of this provision it is understood that systems commissioned mid-quarter will receive payment only for the production of that partial quarter.

Installer Qualifications

All systems receiving incentives under the UCPP must be installed by a qualified installer. The following requirements must be submitted by the applicant as part of the reservation request. The utility will verify that the installer meets the following minimum qualifications prior to confirming a reservation request:

1. The installer must possess a valid license on file with the AZROC with a license classification appropriate for the technology being installed or the installed must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. The AZROC license must be provided as part of the Reservation request.
2. The installer must provide proof of liability insurance.
3. The installer must possess an Arizona business license that is active and in good standing.

Installers may request that the above information be retained on file with the utility; however, under this option the installer must certify that the information on file remains in force and effect.

The utility will also develop a series of recommendations to customers suggesting that they verify that the installer can provide at least the following additional information:

- A dedicated business phone number and/or email for customer access.
- Proof of successful installation history for similar systems.
- A customer reference list which is available for public access.
- Certification of good standing status with the Better Business Bureau and the AZROC.
- Certification that there are no outstanding judgments or liens against the business.

Energy Reporting

The utility will report on the productivity of all UCPP distributed generation systems. For PBI systems the utility will report on the actual metered production of each system as reported by the customer and confirmed by the utility. For systems receiving a UFI the utility will report on the total installed capacity and projected productivity. The utility will develop a method by which to calibrate the reported productivity and shall monitor that method for long-term accuracy.

On occasion a distributed generation system which received a UFI will be removed from the premises of a utility customer site prior to the end of its agreement term without the permission of the utility. Also, on occasion a distributed generation system which had received a UFI will be in need of a repair for which the customer does not plan to complete. If this occurs, and if despite reasonable efforts on the part of the utility the customer will not reinstall or repair the distributed generation system, the utility shall continue to reflect in its annual compliance reporting the annual historic energy production for the system until the agreement term for the system has been completed.

In addition, the utility shall monitor that specific customer site to ensure that an additional incentive is not provided for any new distributed generation system on that site until the operational life of the incented system has been completed.

The utility shall attempt to monitor the number of missing and unrepaired distributed generation systems and shall summarize its observations in its annual compliance report.

Qualifying Distributed Generation Technologies – Technology Criteria

The following technology criteria are not intended to preclude the participation of any technology approved for implementation under the RES. These criteria are aimed at detailing those technologies or application segments within a technology which have been reviewed in detail by the working group and agreed upon to be eligible as conforming projects in the UCPP. In addition, the following sections provide detail on those criteria required by participating technologies.

General Criteria

The working group acknowledged that many regulations and site specific requirements may apply to the installation of any one technology. The working group agreed that no requirement imposed by these technology criteria shall be imposed in conflict with any other jurisdictional requirements. Any UCPP based requirement which is in conflict with a site specific jurisdictional requirement shall be detailed in the reservation request. As such, all qualifying systems are required to adhere to the following requirements in addition to the UCPP program requirements. The following additional requirements may include, but are no limited to:

- Project must comply with local, state, and federal regulations.
- Products must be installed according to manufacturer's recommendations.
- Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.
- Systems must be permitted with and inspected by the jurisdiction having authority over construction projects in the customer's locale.
- All major system components must be new and must not have been previously placed in service in any other location or for any other application.
- If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-generation Equipment.

Referenced standards

Select technology specific criteria reference third party standards. The requirements of those standards are fully applicable when referenced as part of technology specific criteria. The working group noted that rapid growth in national and international renewable energy programs is resulting in greater need for the development of standardization in design, implementation, performance measurement, system integrity, and installation. The working group recognizes that new standards are likely to develop in the near future for technologies included in the UCPP and recommends that the review panel review new standards as they become available. The following standards or standard development bodies are referenced as part of the working group's recommended technology criteria.

- The Active Solar Heating Systems Design Manual developed by the American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc.

(ASHRAE) in cooperation with the Solar Energy Industries Association (SEIA) and the ACES Research and Management Foundation (the Design Manual)
- Arizona state boiler regulations (see R4-13-406)
- The California Energy Commission (CEC)
- Solar Rating and Certification Corporation (SRCC). The SRCC criteria and ratings can be viewed at www.solar-rating.org.
- The Underwriters Laboratory (UL).

Technology Specific Criteria

The technologies referenced in this section were represented during the working group's development efforts. The equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a UCPP incentive. The installation guidance is intended to provide consumers with information on installation practices which are most likely to achieve the systems designed output. Although they are not currently mandated in order for a project to receive a UCPP incentive, they do reflect both industry and utility concurrence on those practices which are important for a technology to best achieve the designed output. In the future these items may be considered to inclusion as part of the equipment qualifications.

Biomass/Biogas Electric

Equipment Qualifications
- Biomass system installations involving a regulated boiler or pressure vessel are required to comply with all Arizona state boiler regulations; provide a qualifying boiler inspection identification number; and keep all applicable permits in good standing.
- System must include a dedicated performance meter to allow for monitoring of the amount of electricity produced.
- Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering reporting stamped by a registered professional engineer. The engineering report shall provide a description on the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.

Installation Guidance
Because of the individual nature of biomass systems, care should be taken to make sure the system complies with all applicable permitting and regulatory requirements, including but not limited to air emission standards and air permit regulations.

Solar Non-residential Daylighting

Equipment Qualifications
All systems shall include the following components as part of the daylighting system:

- A roof mounted skylight assembly with a minimum 70% transmittance dome.
- A reflective light well to the interior ceiling or a minimum 12" below roof deck in open bay areas.
- An interior diffusion lens.
- Minimum of one thermal break/dead air space in the system between the skylight dome and the interior diffuser.
- If artificial lighting systems remain a part of the installation the system shall include automated lighting control(s) which are programmed to keep electric lights off during daylight hours.
- System must provide a minimum of 70% of the light output of the artificial lighting system for all of the claimed period of energy savings when measured in foot-candles.
- Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering reporting stamped by a registered professional engineer or accredited AEE Measurement and Verification professional. The engineering report shall provide a description on the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.

Installation Guidance

All systems should be installed such that the skylight dome is substantially unshaded and have substantially unobstructed exposure to direct sunlight between the hours of 9 am and 3 pm.

Small Wind Generator

A small wind generator is a system with a nameplate rating of 1 (one) MW or less. The technology criteria described below are intended for small wind generators with a nameplate rating of 100kW or less. Larger systems will be required to submit a detailed package describing site selection, energy production modeling, and an engineered system design and installation report.

Equipment Qualifications

- Eligible small wind systems must be certified and nameplate rated by the CEC[1]. See www.consumerenergycenter.org/erprebate/equipment.html for a list of certified generators. For grid tied or off-grid wind generators where an inverter is used, the CEC listed nameplate rating of the wind generator will be multiplied by the CEC approved weighted efficiency percentage listed for the inverter in the "List of Eligible Inverters" at www.consumerenegycenter.org/cgi-

[1] The working group recommends review of the SWCC standards for rating small wind generators once it becomes available for purposes of supplanting the CEC requirement in this Technology Criteria.

bin/eligible_inverters.cgi to calculate the wind turbine nameplate rating for use in determining the UFI payment.

- Grid connected inverters used as part of the system shall carry a UL listing certifying full compliance with UL-1741
- System must include a dedicated performance meter installed to allow for measurement of the amount of electricity produced.
- The performance meter and utility disconnect will be installed in a location readily accessible by utility during normal business hours.
- The tower used in the installation must be designed by an engineer and must be suitable for use with the wind generator. Tower installation must be designed and supervised by individuals familiar with local geotechnical conditions.
- The wind generator and system must include a five-year warranty.

Installation Guidance

- Location: a wind turbine hub should be at least 20 feet above any surrounding object and at least 28 feet above the ground within a 250-foot radius. Wind generators should be installed in locations with an elevation at or above the general elevation of the surrounding terrain within the user's property boundaries.
- Lot Size: should be at minimum one-half acre. Municipalities and public facilities such as schools and libraries are exempt from the minimum lot size requirements.
- The installed system should be demonstrated to obtain at least a 15% capacity factor. The follow are readily available methods for helping to demonstrate the potential for a 15% capacity factor, other methods are available. The installation location should have a demonstrated average annual wind speed of at least 9 MPH as measured at a height of no more than 50 feet above the ground. Average annual wind speed can be demonstrated by wind speed records from an airport, weather station or university within 20 miles of the proposed wind generator location, or by a 50 meter wind power density classification of Class 2 "Marginal" or higher on the "State of Arizona Average Annual Wind Resource map dated July 16, 2005 or later as published by Sustainable Energy Solutions of Northern Arizona University. Northern Arizona University provides detailed wind resource maps as well as other resource services. For more information contact Northern Arizona University at http://wind.nau.edu/maps/.

Photovoltaic Systems

Equipment Qualifications

All Systems

- All systems shall be installed with a horizontal tilt angle between 0 degrees and 60 degrees, and azimuth angle of +/- 110 degrees of due south. Installation configurations for some systems receiving a UFI will not be eligible for the full UCPP incentive.
- System must include a dedicated performance meter to allow for monitoring of the amount of electricity produced.

- Photovoltaic modules must be covered by a manufacturer's warranty of at least 20 years.
- Inverters must be covered by a manufacturer's warranty of at least five years.

Grid-Connected Systems

- Minimum PV array size shall be 1,000 W-DC
- All photovoltaic modules must be certified by a nationally recognized testing laboratory as meeting the requirements of UL Standard 1703.
- All other electrical components must be UL listed.
- The inverter must be certified as meeting the requirements of IEEE-929 - Recommended Practice for Utility Interface of Photovoltaic Systems.
- The utility meter and utility disconnect will be installed in a location readily accessible by utility during normal business hours.

Off Grid Systems

- Minimum, single-system PV array size shall be 200 W-DC or minimum multiple-system combined PV array power rating shall be 1,000 W-DC (per customer)
- The minimum size for systems with energy storage shall be 1,000 W-DC per customer.
- All photovoltaic modules must be certified by a nationally recognized testing laboratory as meeting the requirements of the UL Standard 1703 or engineering report
- All other electrical components must be UL listed
- "As-built" drawings shall be submitted to utility upon completion of project and shall include:
    1. An electrical one-line diagram
    2. A site plan
    3. a equipment location map

Installation Guidance

The Customer will be directed to the following resources to gain information regarding industry reference document for system installation and performance forecasting:

The California Energy Commission's Guide to Buying a Photovoltaic Solar Electric System at http://energy.ca.gov/reports/2003-03-11_500-03-014F.PDF

The Arizona Consumers Guide to Buying a Solar Electric System at www.azsolarcenter.com/design/azguide-1.pdf

Solar Space Cooling

Equipment Qualifications

- The minimum cooling capacity of the system will be 120,000 BTU (10 tons) per hour.

- Solar collector panels used will have a SRCC OG-100 rating or laboratory documentation showing the panel energy output under controlled and replicable test conditions.
- Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering reporting stamped by a registered professional engineer. The engineering report shall provide a description on the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.

Installation Guidance

- The horizontal tilt angle of the collector panels should be between 20 and 60 degrees and the panel orientation should be between +/- 45 degrees of south.
- All systems should be installed such that the energy collection system is substantially unshaded and have substantially unobstructed exposure to direct sunlight between the hours of 9 am and 3 pm.
- The system installation should comply with the design manual.

Non-residential Solar Water Heating and Space Heating

Equipment Qualifications

- Solar collector panels used will have a SRCC OG-100 certification or laboratory documentation showing the panel energy output under controlled and replicable test conditions.
- Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering reporting stamped by a registered professional engineer. The engineering report shall provide a description on the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.

Installation Guidance

- The horizontal tilt angle of the collector panels should be between 20 and 60 degrees and the panel orientation should be between +/- 45 degrees of south.
- All systems should be installed such that the energy collection system is substantially unshaded and have substantially unobstructed exposure to direct sunlight between the hours of 9 am and 3 pm.
- The system installation should comply with the design manual.

Small Domestic Solar Water Heating and Space Heating

Equipment Qualifications

- Domestic Solar Water Heating systems will be rated by the SRCC and meet the OG-300 system standard. Systems that include OG-100 collectors but are not certified

under OG-300 will need to be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering reporting stamped by a registered professional engineer detailing annual energy savings. Solar Space Heating systems will utilize OG-100 collectors.

- Domestic Water Heating systems shall be selected and sized according to the geographic location and hot water needs of the specific application. Reservation requests will include a manufacturer's verification disclosing that the system proposed is appropriate for the specific application. The manufacturer's verification may be presented as a manufacturer's product specification sheet.
- Solar Space Heating systems will be sized in conformance with the Solar Space Heating Incentive Calculation Procedure (Attachment 3).
- Active, open-loop systems are not eligible for UCPP incentives with the following exception. Active, open-loop systems that have a proven technology or design that limits scaling and internal corrosion of system piping, and includes appropriate automatic methods for freeze protection. Details disclosing conformance with this exception shall be submitted as part of the manufacturer's verification documentation.
- ICS systems shall have a minimum collector piping wall thickness of 0.058 inches. Details disclosing conformance with this requirement shall be submitted as part of the Manufacturer's verification documentation.
- The 'high' limit on all Domestic Water Heating controllers shall be set at 160 degrees Fahrenheit.
- Contractors must provide minimum equipment warranty as provided by the system manufacturer, including a minimum warranty period of two years for repair/ replacement service to the customer.

Installation Guidance

- The system shall be installed with a horizontal tilt angle between 20 degrees and 60 degrees, and azimuth angle of +/- 60 degrees of due south. It is recommended that collectors are positioned for optimum winter heating conditions at a minimum tilt angle of 45 degrees above horizontal, or as recommended by the manufacturer for the specific collector type and geographic location of installation.
- All systems should installed such that the energy collection system is substantially unshaded and have substantially unobstructed exposure to direct sunlight between the hours of 9 am and 3 pm
- Heat exchange fluid in glycol systems should be tested and flushed and refilled with new fluid as necessary or every five years per manufacturer's recommendations.
- It is recommended that the anode rod be checked and replaced per manufacturer's recommendations, but no less frequently than every five years.
- The collectors and storage tank should be in close proximity to the backup system and house distribution system to avoid excessive pressure or temperature losses.
- Each system should have an operation and maintenance manual at the customer's site, and each customer must complete an initial start up and operation training review with the contractor at the time of system start up.

Technologies without Technology Specific Criteria and Non-Conforming Projects

Technology specific criteria have not yet been developed for the following qualifying technologies:

- Biogas/Biomass Thermal
- Biogas/Biogas Combined Heat and Power (CHP)
- Fuel Cells
- Geothermal – Space Heating and Process Heating
- Geothermal – Electric
- Hydroelectric
- Non-Residential Pool Heating

For applicants requesting incentives for the above technologies or for applicants requesting installation of a technology with conforming project technology criteria but where some criteria can not be met, the applicant will need to submit design and output documentation.

Applicants installing these systems will at minimum need to provide an energy savings and designed output report for the system. The report must include either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering reporting stamped by a registered professional engineer. The engineering report and/or testing certification shall provide a description on the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications. Additional information may be required as part of the utility specific UCPP requirements.

Distributed Generation Incentives

The working group divided its efforts related to the development of program incentives into three primary areas; general principles; technology specific incentives and incentive adjustment mechanisms; and allocation of available incentive funds.

Incentive Principles

UCPP incentives can be applied to systems designed to serve only the typical load of the customer with whom the incentive agreement has been established. The assessment of that typical load does not preclude the periodic production of electricity in excess of the customer's demand. Under some circumstances it is understood that select customer installations will be designed to serve loads greater than that of the customer. Under those circumstances, the UCPP incentive will be applied only to the fraction of the generation which is used to serve the typical customer load. These incentives were developed separate and apart from other utility program incentives, such as those for demand side management projects. Systems should are not eligible to receive UCPP incentives if other utility incentives are applied.

Two types of incentives are recommended by the working group. Up-front incentives (UFIs) are those incentives where the customer receives a one-time payment based on the systems designed capacity. In general, this type of incentive is appropriate for smaller installations, residential installations, and installations where the total incentive is generally considered proportionally small. The second incentive type recommended by the working group is a production based incentive (PBI). The PBI allows the customer to collect incentive payments in direct relation to the actual system production. PBIs are most appropriate where the total system costs are large.

Incentive funds can be applied to a project, which is the sum of all systems installed at a customer site in a single calendar year. A customer site is the sum of features and/or buildings associated with a single utility revenue meter.

A customer site can obtain a UFI for multiple projects, under separate reservations, up to $75,000 at each customer site per calendar year. Once the sum of incentives for all project(s) exceeds the $75,000 limit, described below, incentives for additional projects will take the form of a PBI.

All residential systems will be offered only a UFI. Non-residential systems may receive either a UFI or a PBI, depending on the technology and the installation size. The working group surveyed most of the technologies in order to determine the most likely average project size. UFIs were developed for technologies where average project size results in a total incentive less than or equal to $75,000. PBIs were developed for technologies where average project size results in a total incentive more than $75,000. Both UFIs and PBIs were developed for technologies where projects can range in size. Projects with total incentives less than or equal to $75,000 will receive a UFI; all others will receive a PBI.

As part of an affected utility's payment of a UFI, the utility will be given complete and irrevocable ownership of the RECs for the operational life[2] of the installed system. Operational life must be supported by system warranty or planned maintenance schedules.

A utility's payment of a PBI will assure the utility complete and irrevocable ownership of the REC for the full duration of the PBI agreement. Where the agreement duration does not fully coincide with the PBI payment schedule, the system must be supported by system warranty or planned maintenance schedules.

Projects receiving a UFI can receive no more than 50% of the system cost in total incentive payout. Projects receiving a PBI can not exceed 60% of the total project costs, defined as the total system cost plus acceptable financing charges. Acceptable finance charges are finance charges used for PBI incentive cap calculation and can not exceed the current prime interest rate plus 5%. Financing charges must be disclosed as part of the commissioning package, if not disclosed before.

The working group recommends that the PBI incentive cap decline in the third year of the program to 55% and that cap decline to 50% in the fifth year and beyond.

Conforming Project Incentives

Conforming project incentives were developed both with specific input from each technology representative(s) and with the collaborative input of the working group. Incentives were developed in an attempt to strike a balance between the requirements of the technology's specific market conditions and a level of incentive which retained project ownership with the applicant. Program incentives were generally not developed with specific consideration for other available state or federal incentives. Incentive caps detailed above were relied upon to account for the impact of multiple incentive sources.

In principle, all incentives were developed first by the establishment of the incentive required under a 20 year agreement. PBI incentives with shorter PBI payment schedules or shorter terms were developed from the 20 year foundation. For example, the PBI incentive associated with a 10 year term was designed to reflect the projected replacement cost associated with the RECs not provided in years 11 through 20.

The incentives proposed by the working groups are detailed in Attachment 4.

ACC staff indicated during the opening working group meeting that the Arizona Solar Electric Industry Association (AriSEIA) model for declining incentives was heavily relied upon during the development of the RES Economic Impact Model. The AriSEIA model proposed a declining annual incentive of $0.30 per year. The model was set to

[2] Operational life of each technology is defined in the Conforming Project Incentive Matrix and is reflected in the Agreement Term.

start in 2005 with an incentive of $3.10 per installed Watt of photovoltaic capacity and ended with an incentive of $1.00 per installed Watt in 2012.

The working group contemplated the application of the declining incentive model proposed by AriSEIA and conceptually agreed with the drivers for declining incentives; however, the working group concluded that technology specific drivers and market uncertainty associated with the introduction of new technologies and a broader based program limited the ability of the group to forecast long range incentive declines.

In alternative to the AriSEIA model, the working group is proposing that the incentive matrix be applied for the first two years of the UCPP. The working group has proposed a second incentive matrix for application in the UCPP during program years three and four. The Year 3 incentive matrix is also included in as part of Attachment 4. The Year 3 incentive matrix reflects a 10 percent decline in all incentives from the Year 1 incentive matrix.

The working group generally agreed that incentive levels should continue to decline in program year five and beyond. The group agreed that longer periods of level incentives coupled with slightly higher declines in the change years would provide for market certainty and the development of marketing strategies. As a result, the working group is recommending that in odd years following year three of the program, incentives be reduced by 15 percent. The working group recommends that the declining incentives and proposed reductions be carefully reviewed by the review panel.

Technologies with Special Incentive Considerations

Beyond the requirements of the technology specific criteria and the requirements of the incentive matrix, some technologies required the additional project specific adjustment of the available incentives. Those specific requirements are detailed below.

Photovoltaic Systems

The productivity of photovoltaic systems is sensitive to the specifics of the installation method and location. In particular these systems are impacted by shading, photovoltaic panel tilt angle and azimuth, and potentially regional conditions. These factors are particularly important as they related to systems receiving UFI type incentives both in the amount of incentive receive by the customer and in the computation of the capacity reported by the utility.

The working group recommends that each utility publish one incentive adjustment table clearly detailing adjustments for each allowable photovoltaic system configuration. The utility will work to assure that the adjustment table is easily interpreted by consumers and installers. Sample incentive adjustment charts prepared by APS and TEP are included as Attachment 5.

Small Domestic Solar Hot Water and Space Heating Systems

System costs associated with small domestic solar hot water and space heating systems presented a unique challenge for the incentive working group. Specifically the proposed incentive level was unlikely to trigger the 50 percent cap for UFI projects; however, the UCPP incentive in combination with other state and federal incentives made it likely that some systems would be free to the customer, or in the extreme, the customer realize a net profit from installing a system.

To prevent this result, the working group proposes that customers requesting incentives for these systems be required to contribute a minimum of 15 percent of the system cost. As such, the incentive for small domestic solar hot water and space heating systems will be calculated by assuming the full application of all available incentives, regardless of the customer's ability to realize any one incentive; adding the customer contribution (15%); and finally adding the UCPP incentive. If the UCPP incentive can be fully applied without exceeding the system cost, the customer will receive the full incentive amount. If the UCPP incentive can not be fully applied without exceeding the System cost, the incentive will be capped such as not to exceed the system cost.

Example:

$$UCPP\_Incentive \leq (System\_Cost) - (Total\_of\_all\_Incentives)$$

Where:

$$Total\_of\_all\_Incentive = Federal\_Incentives + State\_Incentives + (15\% \_ Customer\_Contribution)$$

Small Solar Space Heating System

The working group identified several additional challenges associated with Solar Space Heating Systems. Universally the group acknowledged the utility of this renewable energy application. Variability in design for these systems generally suggested a high level of expertise was required to appropriately size and design the systems; yet the overall system cost seemed to require a standardized approach. In order to address this challenge, the working group has proposed a standardized calculation method to support system sizing and incentive payment. The calculation in presented electronically in Attachment 3.

The working group believes that the proposed approach reflects sound design principles and uses inputs which should be available to professionals in this industry segment. The working group does however recognize that the approach used in the standardized calculation is not presently universally applied. The working group proposes that the continuing efforts be made to develop standard input charts and tables to increase the efficiency of the method's application. In addition, it is the expectation of the working group that the standard calculation can, in most instances, be implemented by practitioners in the solar space heating industry. The working group supports industry collaborative efforts to increase technical knowledge development in this specific area.

UCPP Incentive Allocation

The working group considered incentive allocation on two levels, first with respect to the UCPP at large and second with respect to conforming projects.

UCPP Incentive Allocation

The working group identified three program level allocations in conjunction with the UCPP. The first allocation is that associated with UCPP conforming projects. The second is that associated with UCPP non-conforming Projects. The final allocation is that associated with customer self direct projects.

Allocations for all three UCPP programs will be made by the utility in the implementation plan described by the RES. R18-2-1813. Specific allocations will differ by utility in both amount and relative percentage.

In each program year it is anticipated that the allocation for customer self-direct projects will vary and will depend on specific applications made by eligible customers. The eligible customer must declare that it will self-direct for the next year at least 60 days before the utility's implementation plan filing date as detailed in the RES. A utility's commitment to an eligible customer can not exceed the customer's contribution of funds collected under the utility's tariff in the year prior to the declaration.

Conforming Project Incentive Allocation

Beyond the allocation made by the utility for purposes of funding conforming projects, the working group recommended an allocation model within the conforming project allocation. The working group designed the allocation model with several key considerations in mind. In general, the working group's considerations for the allocation model can be summarized as follows:

- Little additional administrative burden.
- Consumer clarity and ease of understanding.
- Market certainty.
- The need to include market cost reduction drivers.
- Adaptive to market conditions.
- Capable of making all funds available in a timely manner.

These considerations resulted in two different allocation model recommendations, one for residential projects and one for non-residential projects. The allocation models are described below.

Conforming Projects – Residential Incentive Allocation

Funds for conforming residential projects will be divided into four quarters (Jan-Mar, Apr-Jun, Jul-Sep, and Oct-Dec). Funds within each quarter will be made available for

reservations on a first-come first-reserved basis. Reservation requests can be made throughout each quarter and will be reviewed and approved by the utility as long as the quarterly funding has not been exhausted, assuming all other program requirements have been met.

Funds unused in one quarter will be equally divided among the remaining quarters in that year. Funds allocated to residential projects will not roll forward from one year to the next. If funds in one quarter are fully exhausted, funds for the following quarter will be made available at the start of the following quarter.

Reservations which are rejected as a result of insufficient funds will be offered the opportunity to retain their original reservation date for one additional quarter without the need to resubmit application documentation. If the incentive level has changed from the date of the original reservation to the date when the reservation is approved, the new incentive level shall be applied.

Conforming Projects – Non-residential Incentive Allocation

The non-residential incentive allocation model was designed by the working group to capture the key considerations for model development and implementation. The model is designed to allow for economic drivers to play a deciding role when project volume allows the utility the opportunity to select from a large volume of reservation applications. In the alternative, when project volumes drop and the program is not fully subscribed, funds will be available for the development of all conforming projects. In addition, the model allows the review panel to observe and review trends in requested and approved incentive levels. The working group believes this element is key for the on-going management and potential adjustment of incentive levels as needed to respond to market signals.

Non-residential funds will equally divided into six periods (Jan/Feb, Mar/Apr, May/Jun, Jul/Aug, Sep/Oct, and Nov/Dec) each equaling two calendar months. Funds within each period will be made available to projects based on a ranking generated by a calculated project index value, described in detail below. In the event of a tie in the index number, funds will be awarded based on the date of receipt of the completed reservation request.

Reservation requests will be accumulated for one period during the entire duration of preceding period. Review of all reservations will be made following the closing of the reservation period. Once reservation requests are fully indexed and ranked, notification of reservation approval will be made in conformance with the process map timeframes.

Funds unused in one period will be equally divided among the remaining periods in that year. Funds allocated to non-residential projects will not roll forward from one year to the next. Reservations which are rejected as a result of insufficient program funds may elect to carry forward into the next period and retain the original reservation date. The election must be made at the time of the original reservation. Reservations will not be carried forward from one year to the next.

Conforming Project Indexing Calculator

Within each period, projects submitted to the utility for reservation will be ranked based on a calculated index value for purposes of allocating non-residential funds. Indexing of the projects will be performed based on a standardized calculator that will consider the requested incentive amount and energy contribution over the term of the agreement.

The calculator output results in a project index value, the lower the index value the higher the ranking priority. For example, a project with an index value of 900 would receive priority over a project with a index value of 1000. The index values are not intended to describe or reflect an economic measurement of the technology, but rather a unit free rank order.

The working group agreed to build the calculator with functionality for accommodating an indexed value for both UFIs and PBIs on the same scale. The group agreed to apply a discount rate to PBI payments and an 'energy risk factor' to the value of future renewable energy production by the system. The energy risk values were designed to aid in project ranking and are not intended to reflect any actual insight with respect to the likelihood of future system functionality. The group agreed to assign lower energy risk values to years when incentives were received versus the years when the agreement required energy production, but where incentive payments were no longer made. The following principles were embedded into the indexing calculator.

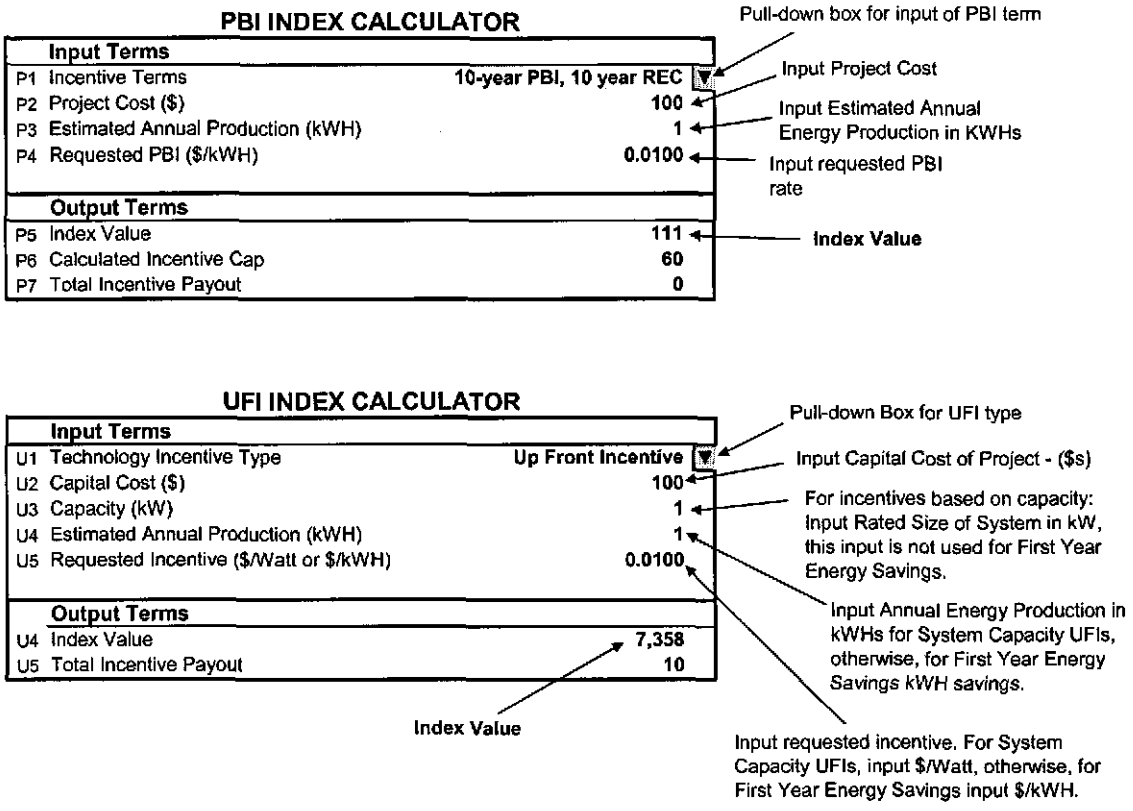
- For PBI agreements where the term matches the PBI payment schedule an energy risk factor of 2% was used.
- For PBI agreements where the term of the agreement does not match the PBI payment schedule, an energy risk factor of 2% was used in years where payments are made by the utility.
- For PBI agreements where the term of the agreement does not match the PBI payment schedule, an energy risk factor of 4% was used in the years beyond the PBI payment schedule, but where the agreement is still in force.
- In PBI agreements where the incentive cap is likely to be met before the full PBI payment schedule has been met, a 4% energy risk factor will be applied to all years after the year the cap has been met and the term of the agreement is still in place.
- For UFI agreements, an energy risk factor of 4% will be used for the full term of the agreement.
- For PBI agreements a discount rate will be applied to the schedule of annual payments. The discount rate was originally proposed at 5%, however, during construction of the calculator it was noted that a higher discount rate would be required to produce the desired indexing outcomes. A discount rate of 8.2% was selected.

A fully functional electronic version of the calculator is included as Attachment 6. As constructed, the indexing calculator does not preclude the user from entering values which are not authorized by the program. For example, a used could enter a UFI incentive request totaling more than $75,000 or the user could enter a PBI incentive request for a value greater then that approved by the incentive matrix. Future versions of the calculator could be developed to include "UCPP program intelligence."

The working group recommends that once approved, the indexing calculator is made available to utilities, installers, and consumers so that all market participants will be able to predetermine the index value attributed to the reservation request.

A screen shot of the calculator is provided below and a brief description of the input lines is included for illustrative purposes. A fully functional version of the calculator is attached to this report. The input lines of the calculator are numbered such as to allow for the development of an instruction pamphlet. An instruction manual was not developed as part of this report.

Conforming Project Calculator



Non-Conforming Project and Customer Self-Direct Funding

Non-Conforming Projects

Non-conforming projects include, but are not limited to, projects with staged completion dates, multi-customer or multi-system projects, projects involving more than one technology where an interrelated incentive was not developed, projects requiring new or unique agreement terms, or projects requiring timelines differing from those offered to conforming projects. Non-conforming projects also include technologies for which a conforming incentive was not developed at the time of this report.

As detailed in the UCPP incentive allocation section of this report, the utility will disclose the allocation of funds for non-conforming projects in its implementation plan for the next year. Utilities will include a minimum allocation to allow for the potential development of projects with technologies not included on the conforming project incentive matrix.

The utility may choose to detail a date upon which the non-conforming project allocation can be applied to other distributed generation projects. Non-conforming project allocations will not carry forward from one year to the next.

Incentives used for non-conforming projects must achieve similar financial efficiency as those incentives used in the conforming project category. Incentives applied for non-conforming projects must meet the lower of 1) the maximum allowable incentive for the proposed technology as described in the Conforming Project Incentive matrix or 2) the average incentive of projects accepted by the utility for disbursement for the proposed technology in the previous year.

Some qualifying technologies will not have either of the previously described financial efficiency measures. Those applicants can negotiate the requested system or project incentive with the utility. In no instance can the incentive exceed the highest calculated incentive rank approved by the utility in the previous year.

Under some circumstances a non-conforming project may not identify the customer at project initiation. Regardless of the project design, implementation, or timeline, a customer must be identified at the time of system commissioning. Non-conforming funds will be disbursed upon filing by the customer and acceptance of project commissioning documentation by the utility. For purposes of financing non-conforming projects, funds can be assigned to third parties.

Non-conforming systems must report system capacity (for up-front incentives) or production (for performance-based incentives) in general conformance with those same technologies as described in the conforming project requirements. For those technologies not described in the conforming project criteria, the reservation documentation must include details related to system capacity and anticipated annual production. Metering

equipment must be made available to the utility during normal business hours for inspection and reporting purposed.

Customer Self-Directed

This alternative project funding mechanism is available to an eligible customer (R14-2-1801(8)) for accessing its allocation of funds collected as part of the utility tariff. As described in the UCPP incentive allocation section of this report, the eligible customer must declare that it will self-direct for the next year at least 60 days before the utility files its implementation plan for the next year. Self-directed funds can only be requested for prospective years and cannot include prior year payments. A utilities commitment to a self-directing customer can not exceed the customer's contribution of funds collected under the utility tariff in the year prior to the declaration.

Incentives used for customer self direct projects must also achieve similar financial efficiency as those incentives used in the conforming project category. Incentives used for customer self direct projects must not exceed the maximum allowable incentive for the proposed technology as described in the conforming project incentive matrix. If the eligible customer wishes to apply customer self direct funds to a qualified technology or application not described in the conforming project incentive matrix, the customer will submit documentation describing the project economics and incentive level applied. All projects proposed for customer self direct funding must meet the requirements of R14-2-1809(B).

Eligible customers who have facilities in the service territories of more than one affected utility can only apply for funds from each utility that were collected by that utility. The funds obtained from an affected utility can only be used for projects in that utility's service territory.

Customer self direct systems must report system capacity (for up-front incentives) or production (for performance-based incentives) in general conformance with those same technologies as described in the conforming project requirements. For those technologies not described in the conforming project criteria, the project commissioning documentation must include details related to system capacity and anticipated annual production. Production reporting can occur no less frequently then annually for technologies not described in the conforming project criteria. Metering equipment must be made available to the utility during normal business hours for inspection and reporting purposed.

For purposes of financing customer-sited projects, customer self direct funds can be assigned to third parties. Such assignment remains the sole right of the customer.

Minority and Dissenting Opinions

In some instances the efforts of the working group were not able to reconcile the concerns of all working group participants. Those concerns are not detailed as part of the body of this report; however, for purposes of full representation, the opinions of those participants submitted to the working group in writing are include as Attachment 7 to this report. Those opinions have not been reviewed or edited as part of the drafting of this report.

In all cases the minority and/or dissenting opinion reflects less then a simple majority and often no more than an individual position.